

**IN THE CLAIMS:**

1. (Currently Amended) An epitaxial silicon wafer including a silicon wafer substrate doped with nitrogen on which an epitaxial film formed, wherein a hill-shaped defect is not observed on the epitaxial film a range of nitrogen concentration and oxygen concentration falls within an area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is  $3 \times 10^{15}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $7 \times 10^{17}$  atoms/cm<sup>3</sup> and a point at which the nitrogen concentration is  $3 \times 10^{14}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $1.6 \times 10^{18}$  atoms/cm<sup>3</sup>.
  
2. (Currently Amended) An epitaxial silicon wafer including a silicon wafer substrate doped with nitrogen on which an epitaxial film formed, wherein the number of crystal defects observed as LPDs Light Point Defects of 120 nm or more on the epitaxial film is 20 pieces/200-mm wafer or less and wherein a range of nitrogen concentration and oxygen concentration falls within an area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is  $3 \times 10^{15}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $7 \times 10^{17}$  atoms/cm<sup>3</sup> and a point at which the nitrogen concentration is  $3 \times 10^{14}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $1.6 \times 10^{18}$  atoms/cm<sup>3</sup>.
  
3. (Currently Amended) A method of manufacturing a silicon single crystal ingot by Czochralski method, wherein silicon single crystal pulling is performed in a range of nitrogen concentration and oxygen concentration, which falls within an area in a graph in which the

oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is  $3 \times 10^{15}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $7 \times 10^{17}$  atoms/cm<sup>3</sup> and a point at which the nitrogen concentration is  $3 \times 10^{14}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $1.6 \times 10^{18}$  atoms/cm<sup>3</sup> while nitrogen is being doped in a region where the number of crystal defects observed after epitaxial growth as LPDs Light Point Defects of 120 nm or more is 20 pieces/200-mm wafer or less.

4. (Currently Amended) A method of manufacturing a silicon single crystal ingot by Czochralski method, wherein silicon single crystal pulling is performed in a range of nitrogen concentration and oxygen concentration, which falls within an area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which not exceeding a range wherein the nitrogen concentration is about  $3 \times 10^{15}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $7 \times 10^{17}$  atoms/cm<sup>3</sup> and a point at which the nitrogen concentration is about  $3 \times 10^{14}$  atoms/cm<sup>3</sup> when the oxygen concentration is  $1.6 \times 10^{18}$  atoms/cm<sup>3</sup>.

5. (Currently Amended) The method of manufacturing a silicon single crystal ingot by the Czochralski method according to claim 4, wherein the oxygen concentration is lowered corresponding to an and in accordance with increase in nitrogen concentration.

6. (Currently Amended) A nitrogen-doped silicon wafer, wherein a range of nitrogen concentration and oxygen concentration are falls within a range an area in a graph in which the

oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is about  $3 \times 10^{15}$  atoms/cm<sup>3</sup> or less when the oxygen concentration is  $7 \times 10^{17}$  atoms/cm<sup>3</sup> and a point at which the nitrogen concentration is about  $3 \times 10^{14}$  atoms/cm<sup>3</sup> or less when the oxygen concentration is  $1.6 \times 10^{18}$  atoms/cm<sup>3</sup>.

7. (Currently Amended) A nitrogen-doped silicon wafer, wherein a range of nitrogen concentration and oxygen concentration are falls within a rangean area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is about  $1 \times 10^{15}$  atoms/cm<sup>3</sup> or less when the oxygen concentration is  $7 \times 10^{17}$  atoms/cm<sup>3</sup> and a point at which the nitrogen concentration is about  $1 \times 10^{14}$  atoms/cm<sup>3</sup> or less when the oxygen concentration is  $1.5 \times 10^{18}$  atoms/cm<sup>3</sup>.

8. (Cancelled)

9. (Cancelled)